**Replacement paragraph at page 10, lines 9 – 21, with changes marked as shown:**

Selectively flowing a "purge" gas proximate to surfaces where deposition is undesirable, such as reaction chamber walls and a showerhead face plate, reduces the partial pressure of reactants in the vicinity of the surfaces without substantially decreasing the partial pressure near the substrate wafer surface. A concurrent purge of such ~~services~~ surfaces is conducted by flowing purge-gas during deposition processes when reactive gases are also present in the deposition chamber. It is known to flow inert purge gases concurrently with deposition of thin films; for example, CVD deposition of tungsten (W) compounds and TiN. The concurrent flow of inert purge-gas changes the convective flow patterns of the gases in the chamber, causing the partial pressure of the Ru precursor and other reactant gases to be reduced in the vicinity of the chosen surfaces. This reduces the deposition rate on that surface, and thereby reduces the frequency with which an *in-situ* clean of the chamber must be performed.

**Replacement paragraph at page 13, lines 4 – 17, with changes marked as shown:**

In processes 224, a vaporized Ru-containing precursor flows from precursor source 124 through precursor control valve 128 and precursor tube 126 into first inlet ~~to~~ tube 120 and then through dual plenum showerhead manifold 116 into single-substrate ruthenium-deposition reaction chamber 104, which typically has an enclosed volume of about 10 liters to 20 liters. In embodiments including concurrent CO purge gas, CO gas also flows through first inlet tube 120 mixed with Ru-containing precursor compound into manifold 116. The ratio of the flow rate of Ru-containing precursor compound in first inlet tube 120 relative to the combined flow rate of nonreactive carrier gas and CO purge gas is generally in a range of 5 to 1/200, typically about 1/25. In certain embodiments, a reactant gas, such as an oxidizer or a reducing gas, is not necessary and Ru precursor compound reacts in a desired CVD reaction at a heated substrate surface to deposit the desired Ru-containing thin film, such as a Ru seed layer. In typical embodiments, however, an oxidizing or reducing reactant gas is flowed into reaction chamber 104.

It is believed that no additional fees are due.

Respectfully submitted,

Thomas Swenson, Reg. No. 36,696
Telephone: (303) 440.7800
Facsimile: (631) 980.6001
**Customer No.: 43023**